

PATENT PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

fe Application of : Customer Number: 20277

Craig HANSEN, et al. : Confirmation Number: 5073

Application No.: 10/757,851 : Group Art Unit: 2183

Filed: January 16, 2004 : Examiner: Unknown

For: METHOD AND SOFTWARE FOR PARTITIONED FLOATING-POINT MULTIPLY-

ADD OPERATIONS

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached form PTO-1449. It is respectfully requested that the documents be expressly considered during the prosecution of this application, and that the documents be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

Applicants are submitting to the Office a single paper copy of each of the documents listed on the attached form PTO-1449 in connection with a corresponding Supplemental Information Disclosure Statement filing for U.S. Patent Application No. 10/418,113. Applicants are separately filing a Petition requesting waiver of Rules 1.4(b) and 98(a)(2), which requires copies of the documents listed on the attached form PTO-1449 to be provided herewith. In view of the Office's practice of scanning documents into the Image File Wrapper, it is believed that providing a single set of paper copies will enable the Office to process the papers efficiently and expedite the

10/757,851

Examiner's consideration of the same. Furthermore, the attached form PTO-1449 includes citations to some materials for which it is difficult to obtain additional copies. In view of the Petition and in the interests of efficiency, Applicants' respectfully request that a copy of each of the cited documents be made of record in the present application.

This Information Disclosure Statement is being filed within three months of the U.S. filing date OR before the mailing date of a first Office Action on the merits. No certification or fee is required.

Applicants bring to the Examiner's attention the following pending applications of Craig C. Hansen et al., which may include subject matter related to the present application:

Application Number	Title
10/418,113	Multiplier Array Processing System With Enhanced Utilization At Lower Precision
10/436,340	System With Wide Operand Architecture, And Method
10/616,303	Programmable Processor And Method With Wide Operations
10/646,787	Method And Software For Partitioned Group Element Selection Operation
10/705,946	Programmable Processor And Method For Partitioned Group Shift
10/712,430	System And Software For Catenated Group Shift Instruction
10/716,561	Programmable Processor And Method For Matched Aligned And Unaligned Storage Instructions
10/716,568	System And Software For Matched Aligned And Unaligned Storage Instructions
10/757,515	Method And Software For Multithreaded Processor With Partitioned Operations
10/757,516	Programmable Processor And System For Store Multiplex Operation
10/757,524	Programmable Processor And For Partitioned Group Element Selection Operation
10/757,836	Programmable Processor And System For Partitioned Floating-Point

Multiply-Add Operation.

10/757,866 Method And Software For Store Multiplex Operation

10/757,925 Method And Software For Partitioned Group Element Selection

Operation

10/757,939 Multithreaded Programmable Processor And System With

Partitioned Operations

The attached form PTO-1449 includes (but is not exclusively limited to) documents that were cited in on-going litigation proceedings between the assignee of the present application, Dell Inc. and Intel Corp. (U.S. District Court for the Eastern District of Texas, Marshall Division (Civil Action No. 2:04-CV-120(TJW)). This litigation involves seven patents that are in the same family as each of the above applications.

Additionally, some documents were cited in related foreign applications. A copy of the foreign search report or office action is attached for the Examiner's information.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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Date: June 10, 2005

Please recognize our Customer No. 20277 as our correspondence address.

SHEET 1 OF 11

INFORMATION IN AN APPLICATION

ATTY. DOCKET NO. **043876-0162**

SERIAL NO. **10/757,851**

APPLICANT

HANSEN, C., et al.

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(PTO-1449)			FILING DATE January 16, 200		GROUP 2183					
			U	S. PATENT	DOCUMENTS					
EXAMINER'S CITE INITIALS NO.		Document Number Number-Kind Code2 (If known)		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document			Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
		us	4,658,349 A	05/14/1987	Gafken					
		us	4,852,098	07/25/1989	Brechard et al.					
		us	4,875,161	10/17/1989	Lahti		<u> </u>			
		us	4,949,294	08/14/1990	Wambergue	·				
		us	4,953,073	08/28/1990	Moussouris et a	il.				
		us	4,959,779	09/25/1990	Weber et al.					
	<u> </u>	υs	5,113,506	05/12/1992	Moussouris et a	ıl.	<u> </u>			
		υs	5,161,247	11/3/1992	Murakami et al.					
	 	us	5,208,914	05/04/1993	Wilson et al.					
	 	us	5,231,646	07/27/1993	Health et al		_			
		us	5,233,690	08/03/1993	Shelock et al.				·	
	 	us	5,268,995	12/07/1993	Diefendorff et a	1.		•		
-	 	us	5,347,643 A	09/13/1994	Kondo Nobukazu e	et al.				
	 	us	5,412,728 a	05/03/1995	Besnard Christian e	et al.				
		us	5,430,660 A	07/04/1995	John Hengeveld e	t al.				
-		us	5,471,628	11/28/1995	Phillips et al.	-				
		us	5,515,520	05/07/1996	Hatta et al.	-				
	 	us	5,533,185	07/02/1996	Lentz et al.		+			
		us	5,590,365	12/31/1996	lde et al.	•				
•		us	5,636,351	06/03/1997	Lee					
	 	us	5,742,840	04/21/1998	Hansen et al.					
•		us	5,778,412 A	07/07/1998	Gafken					
	 	üs	5,828,869	10/27/1998	Johnson et al.					
		us	5,996,057	11/30/1999	Scales, III et al.		-			
	 	us	6,453,368 B2	09/17/2002	Yamamoto					
		us	6,657,908 B1	05/20/2003	Furuhashi					
				FOREIGN PAT	ENT DOCUMENTS				****	
EXAMINER'S INITIALS	CITE NO.		eign Patent Document ntry Codes -Number 4 -Kind Codes (if known)	Publication Date MM-DD-YYYY	Applicant of Cited Document Where F		olumns, Lines e Relevant es Appear	Yes	ranslation No	
			JP 3268024	11/28/1991	Hitachi Ltd.			7		
•			EP 0 468 820 A2	01/29/1992	Fujitsu Limited					
			WO 93/01565	01/21/1993	Seiko Epson Corporation					
			CA 1 323 451	10/19/1993	Northern Telecom Ltd.					
			JP 6095843	04/08/1994	IBM					
		Ī	EP 0 651 321 A	05/03/1995	Advanced Micro Devices Inc.					
			EP 0 654 733 A1	05/24/1995	Hewlett-Packard					
10			JP-S60-217435	10/31/1985	Toshiba Corp.					
			WO 97/07450	02/27/1997	Microunity Systems Engineering, Inc.					
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¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

SERIAL NO. INFORMATION DISCLOSURE ATTY, DOCKET NO. 043876-0162 10/757,851 CITATION IN AN APPLICATION APPLICANT HANSEN, C., et al. **FILING DATE GROUP** (PTO-1449) January 16, 2004 2183 OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) **EXAMINER'S** Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, **INITIALS** journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where CITE published. NO. Ide, et al., "A 320-MFLOPS CMOS Floating-point Processing Unit for Superscalar Processors," p. 12-21, 28 March 1993, IEEE J. OF SOLID-STATE CIRCUITS. L-2 K. Uchiyama et al., The Gmicro/500 Superscalar Microprocessor with. Branch Buffers, IEEE Micro, October 1993, p. 12-21. Ruby B. Lee, Realtime MPEG Video Via Software Decompression on a PA-RISC Processor, IEEE (1995). 1-4 Karl M. Guttag et al. "The TMS34010: An Embedded Microprocessor", IEEE June 1988, p. 186-190. M. Awaga et al., "The µVP 64-bit Vector Coprocessor: A New Implementation of High-Performance Numerical Computation", IEEE Micro, Vol. 13, No. 5, October 1993, p.24-36. L-6 Tom Asprey et al., "Performance Features of the PA7100 Microprocessor", IEEE Micro (June 1993), p. 22-35. 1-2 Gove, Robert J., "The MVP: A Highly-Integrated Video Compression Chip," IEEE Data Compression Conf., March (1994), pp. 215-224. L-8 Woobin Lee, et al., "Mediastation 5000: Integrating Video and Audio," IEEE Multimedia, 1994, pp. 50-61. Karl, Guttag et. al "A Single-Chip Multiprocessor for Multimedia: The MVP," IEEE Computer Graphics & Applications, November, 1992, p. 53-64. TMS32OC8O (MVP) Master Processor User's Guide, Texas Instruments, March, 1995, p. 1-33. L-14 TMS320C80 (MVP) Parallel Processor User's Guide ["PP"]; Texas Instruments March 1995, p. 1-80. L-12 Shipnes, Julie, "Graphics Processing with the 88110 RISC Microprocessor," IEEE COMPCOM, (Spring, 1992) pp. 169-174. L-13 ILLIAC IV: Systems Characteristics and Programming Manual, May 1, 1972, p. 1-78. L-14 N. Abel et al., ILLIAC IV Doc. No. 233, "Language Specifications for a Fortran-Like Higher Level Language for ILLIAV IV, August 28, 1970, p. 1-51. ILLIAC IV Quarterly Progress Report: October, November, December 1969; Published January 15, 1970, pp. 1-15. L-16 N.E. Abel et al., Extensions to Fortran for Array Processing (1970) pp. 1-16. **EXAMINER** DATE CONSIDERED

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_	L-18	Morris A, Knapp et al.ILLIAC IV Syst "Bulk Storage Applications in the ILLI		amming Manual (1972)			
	L-18	Rohrbacher, Donald, et al., "Image Pro Computer, Vol. 10, No. 8, pp 54-59 (A					
	L-19	Siegel, Howard Jay, "Interconnection Networks for SIMD Machines," IEEE Computer, Vol. 12, No. 6, (June, 1979) (reprinted version pp 110-118).					
	L-20	Mike Chastain, et. al., "The Convex C240 Architecture", Conference of Supercomputing, IEEE 1988, p. 321-329.					
	L-21	Gwennap, Linley, "New PA-RISC Processor Decodes MPEG Video: HP's PA-71 00LC Uses New Instructions to Eliminate Decoder Chip," Microprocessor Report, (January 24, 1994) pp. 16-17.					
	L-20	Patrick Knebel et al., "HP's PA7100LC: A Low-Cost Superscalar PARISC Processor," IEEE (1993), pp. 441-447.					
	L-23	Kurpanek et al., "PA7200: A PA-RISC Processor with Integrated High Performance MP Bus Interface," EEEE (1994), pp. 375-82.					
	L-24	Hewlett Packard, PA-RISC 1.1 Architecture and Instruction Set Reference Manual, 3rd ed. Feb. 1994, pp. 1-424.					
	L-25	Margaret Simmons, et. al "A Performance Comparison of Three Supercomputers – Fujitsu VP-2600, NEC SX-3, and Cray Y-MP", 1991 ACM, p. 150-157.					
	L-26	Smith, J. E., "Dynamic Instruction Scheduling and the Astronautics ZS-1," Computer, Vol. 22, No. 7, July 1989, at 21-35 and/or the Astronautics ZS-1 computers made used, and/or sold in the United States, pp. 159-173.					
	L-27 Nikhil et al., "T: A Multithreaded Massively Parallel Architecture" Computation Structures Group Memo 325-2 (March 5, 1992), pp. 1-13.						
	Undy, et al., "A Low-Cost Graphics and Multimedia Workstation Chip Set," IEEE pp. 10-22 (1994).						
EXAMINER			DATE	CONSIDERED			

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	L-42		Kristen Davidson, Declaration of Kristen Davidson, p. 1 and M. Kimura et al., Development of Ginicro 32-bit Family of Microprocessors, Fujitsu Semiconductor Special Part 2, Vol. 43, No. 2, February 1992.					
	L-43	Bit Manipulator," IBM Technical Disc https://www.delphion.com/tdbs/tdb?or		74, pp 1576-1576				
	L-44	"Using a Common Barrel Shifter for Operand Normalization, Operand Alignment and Operand Unpack and Pack in Floating Point," IBM Technical Disclosure Bulletin, July, 1986, p. 699-701 https://www.delphion.com/tdbs/tdb?order=86A+61578.						
	L-45	Motorola MC88110 Second Generation	Motorola MC88110 Second Generation RISC Microprocessor User's Manual (1991).					
	L-46	Berkerele, Michael J., "Overview of the START (*T) Multithreaded Computer" IEEE January 1993, p. 148-1 56.						
	L-47	Diefendorff, et al., "Organization of the Motorola 88110 Superscalar RISC Microprocessor" IEEE Micro April, 1992, p.39-63;						
	L-48	Barnes, et al., The ILLIAC IV Computer, IEEE Transactions on Computers, vol. C-17, no. 8, August 1968.						
	L-49	Ruby B. Lee et al., Real-Time Software MPEG Video Decoder on Multimedia-Enhanced PA 7 100LC Processors, Hewlett-Packard J. April 1995, p.60-68.						
	L-50	Ruby B. Lee, "Realtime MPEG Video Via Software Decompression on a PA-RISC Processor," IEEE 1995, p.186-192.						
	L-51	"The Multimedia Video Processor (MVP): A Chip Architecture for Advanced DSP Applications," Robert J. Gove, IEEE DSP Workshop (1994).						
	L-52 Convex Assembly Language Reference Manual, First Ed., December 1991.							
	Convex Architecture Reference Manual (C Series), Sixth Edition, Convex Computer Corporation (April 1992).							
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L-70	"Control Data 6400/6500/ 6600 Compu	ter Systems, SCOPE Reference	e Manual, September1966.		
L-71	"Control Data 6400/6500/ 6600 Compu	ter Systems, COMPASS Refer	ence Manual, 1969.		
L-72	Tolmie, Don, "Gigabit LAN Issues: HIF Laboratory Rep. No. LA-UR 94-3994 (1		Los Alamos National		
L-73	ILLIAC IV: Systems Characteristics and	d Programming Manual, May	1, 1972.		
L-74	1979 Annual Report: The S-1 Project V	ol. 1 Architecture 1979.			
L-75	1979 Annual Report: The S-1 Project V	ol.2 Hardware 1979.			
L-76	S-1 Uniprocessor Architecture, April 21, 1983 (UCID 19782) See also S-1 Uniprocessor Architecture (SMA-4), Steven Cornell;				
L-77	Broughton, et al., The S-1 Project: Top-End Computer Systems for National Security Applications, October 24, 1985.				
L-78	Convex Data Sheet C4/XA High Performance Programming Environment, Convex Computer Corporation.				
L-83	Bowers et al., "Development of a Low-Cost, High Performance, Multiuser Business Server System," Hewlett-Packard J. Apr. 1995 p. 79-84.				
L-80	Mick Bass et al., "The PA 7100LC Microprocessor: A Case Study of Design Decisions in a Competitive Environment Hewlett-Packard J. April 1995, p. 12-18.				
L-81	Mick Bass, et. al. "Design Methodologies for the PA 7100LC Microprocessor", Hewlett Packard Journal April 1995 p. 23-35.				
L-37	Wang, Chin-Liang, "Bit-Level Systolic Array for Fast Exponentiation in GF (2Am)," IEEE Transactions on Computers, Vol. 43, No. 7, July, 1994 p. 838-841.				
L-83	Markstein, P.W., "Computation of Elementary Functions on the IBM RISC System/6000 Processor," IBM J. Res. Develop., Vol. 34, No. 1, Jan. 1990 p. 111-119.				
L-8 9	Donovan, Walt, et al., "Pixel Processing in a Memory Controller," IEEE Computer Graphics and Applications, January, 1995 p. 51-61.				
L-8 6	Ware et al., 64 Bit Monolithic Floating Point Processors, IEEE Journal Of Solid-state Circuits, Vol. Sc-17, No. 5, October 1982, pp. 898-907.				
L-86	L-86 Hwang, "Advanced Computer Architecture: Parallelism, Scalability, Programmability" (1 993) at 475, p. 898-907.				
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INFORMATION DISCLOSURE SERIAL NO. ATTY. DOCKET NO. 043876-0162 10/757,851 CITATION IN AN APPLICATION APPLICANT HANSEN, C., et al. FILING DATE **GROUP** (PTO-1449) January 16, 2004 2183 OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) EXAMINER'S Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, INITIALS journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where CITE published. NO. L-87 Hwang & Degroot, "Parallel Processing for Supercomputers & Artificial Intelligence," 1993. L-88 Nienhaus, Harry A., "A Fast Square Rooter Combining Algorithmic and Table Lookup Techniques," IEEE Proceedings Southeastcon, 1989 pp 1103-1105. L-89 Eisig, David, et al., "The Design of a 64-Bit Integer Multiplier/Divider Unit," IEEE 1993 pp 171-178. L-99 Margulis, Neal, "i860 Microprocessor Architecture," Intel Corporation 1990. L-91 Intel Corporation, 3860 XP Microprocessor Data Book" (May 1991). L-97 Hewlett-Packard, "HP 9000 Series 700 Workstations Technical Reference Manual Model 712 (System)" January 1 994. L-88 Ruby Lee, et al., Pathlength Reduction Features in the PA-RISC Architecture Feb. 24-28, 1992 p. 129-135. L-94 Kevin Wadleigh et al., High Performance FFT Algorithms for the Convex C4/XA Supercomputer, Poster, Conference on Supercomputing, Washington, D.C., Nov. 1994. L-88 Fields, Scott, "Hunting for Wasted Computing Power: New Software for Computing Networks Puts Idle PC's to Work," Univ. of Wisconsin-Madison 1993 p. 1-8. L-96 Litzkow et al., "Condor - A Hunter of Idle Workstations," IEEE (1988) p. 104-111. L-97 Gregory Wilson, The History of the Development of Parallel Computing" http://ei.cs.vt.edu/history/Parallel.html, p. 1-38. I-98 Marsha Jovanovic and Kimberly Claffy, Computational Science: Advances Through Collaboration" "Network Behavior" San Diego Supercomputer Center 1993 Science Report, p.1-11 [http://www.sdsc.edu/Publications/SR93/network behavior.html]. L-99 National Science Foundation (NSF) [www.itrd.gov/pubs/blue94/section.4.2.html] 1994. L-100 Intel Corporation, "Paragon User's Guide" (Oct. 1993). L-101 Turcotte, Louis H., "A Survey of Software Environments for Exploiting Networked Computing Resources" Engineering Research Center for Computational Field Simulation June 11, 1993, p. **EXAMINER** DATE CONSIDERED

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		OTHER ART (Includin	g Author, Title, Date, Pertinent Pages, E	Etc.)				
EXAMINER'S INITIALS	CITE NO.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.						
	L-115	McKee, Sally A., "Maximizing Memory Bandwidth for Streamed Computations," A Dissertation Presented to the Faculty of the School of Engineering and Applied Science at the University of Virginia, May 1995.						
	L-116	A Systematic Approach to Optimizing and Verifying Synthesized High-Speed ASICs", Trevor Landon, et. Al., Computer Science Report No. CS-95-51, December 11, 1995.						
	L-117	"Control Data 6400/6500/ 6600 Computer Systems Reference Manuals" 1969 available at http://led-thelen.org/comp-hist/CDC-6600-R-M.html ("CDC 6600 Manuals").						
	L-118	"Where now for Media processors?", Nick Flaherty, Electronics Times, August 24, 1998.						
	L-119	George H. Barnes et al., The ILLIAC IV Computer ¹ , ¹ IEEE Trans., C-17 vol. 8, pp. 746-757, August 1968.						
	L-120	J.E. Thornton, Design of a Computer - The Control Data 6600 (1970).						
	L-121	Gerry Kane, PA-RISC 2.0 Architecture", Chp. 6 Instruction Set Overview, Prentice Hall isbn 0-13-182734-0, p. 6-1—6-26.						
	L-122	Cosoroaba, A.B., "Synchronous DRAM products revolutionize memory system design," Fujitsu Microelectronics, Southcod95 May 709 1995.						
	L-123	Intel 450KX/GX PCIset, Inetel Corporation, 1996						
	L-124	Baland, Granito, Marcotte, Messina, Smith, "The IBM System1360 Model 91: Storage System" IBM System Journal, January, 1967, pp. 54-68.						
	L-125	File History of U.S. Patent Application No. 08/340,740 (filed November 16, 1994).						
	L-126	File history of U.S. Patent Application No. 07/663,314 (filed March 1, 1991).						
	S.S. Reddi et. al. "A Conceptual Framework for Computer Architecture" Computing Surv Vol. 8, No. 2, June 1976.							
Yulun Wang, et al, "The 3DP: A processor Architecture for Three-Dimensional Applicat January 1992, p. 25-36.								
	•	EXAMINER	DATE C	ONSIDERED				

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	L-129	"IEEE Draft Standard for High-Bandwi Technology (RamLink)", 1995, pp.1-10	•	n SCI Signaling			
	L-130	Gerry Kane and Joe Heinrich, "MIPS R Simon & Shuster Company, Upper Sad	ISC Architecture" 1992, Publis	sher: Prentice-Hall Inc., A			
	L-131	CATHY MAY et al."The Power PC Ar	chitecture: A Specification For				
		Processors" Second Edition May 1994,		n Publishers, Inc. San			
	L-132	Francisco CA, IBM International Busin		the Institute of Electrical			
	L-132	"IEEE Standard for Scalable Coherent Interface (SCI)", Published by the Institute of Electrical and Electronics Engineers, Inc. August 2, 2003, pp. 1-248.					
	L-133	DON TOLMIE and Don Flanagan, "HIPPI: It's Not Just for Supercomputers Anymore" Data					
	ļ	Communications published May 8, 199		4.40.4			
	L-136	IEEE Draft Standard for "High-Bandwi					
		Signaling Technology (RamLink)", IEEE Standards Department, Draft 1.25 IEEE P1596.4-199X May 1995.					
	L-137	JOE HEINRICH, "MIPS R4000 Microprocessor User's Manual Second Edition" 1994 MIPS Technologies, Inc. pp. 1-754.					
	L-138	Litigation proceedings in the matter of <i>Microunity Systems Engineering, Inc.</i> v. Dell, Inc. et al., Corrected Preliminary Invalidity Contentions and Exhibits, filed January 12, 2005, Civil Action					
	L-139	No. 2:04-CV-120(TJW), U.S. District Court for the Eastern District of Texas Marshall Division. Ang, StarT Next Generation: Integrating Global Caches and Dataflow Architecture, Proceedings					
	2 .5,	of the ISCA 1992.					
	L-140	Saturn Architecture Specification, published April 29, 1993.					
	L-141	C4/XA Architecture Overview, Convex Technical Marketing presentation dated November 11, 1993 and February 4, 1994.					
	L-142						
	L-143	Giloi, Parallel Programming Models and Their Interdependence with Parallel Architectures, IEEE Proceedings published September 1993.					
	L-144						
	L-145						
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